April 26, 2012

Mr. James Cagle
Nu-West Industries
Conda Phosphate Operations
3010 Conda Road
Soda Springs, ID 83276

Re: Soil Concentrations, Comparative Values, and Project Schedule
Nu-West Industries, Inc., Conda Phosphate Operations Facility
EPA Docket No. RCRA-10-2009-0186

Dear Jim:

WSP Environment & Energy, LLC has prepared this letter in response to the U.S. Environmental Protection Agency's (EPA) correspondence regarding the calculation of background soil screening levels (EPA, April 6 and 19, 2012) and the project timeline and schedule.

SOIL CONCENTRATIONS AND COMPARATIVE VALUES

The Off-Site Soil Sampling Plan, Sampling and Analysis Work Plan Addendum (Work Plan Addendum; WSP, September 19, 2011) outlined an approach to establish background soil concentrations and comparative values (CVs) and, based on the CVs, evaluate potential impacts to soil associated with releases from the decant ditch system in nine areas.

Establishment of Background Soil Concentrations

Pursuant to the Work Plan Addendum, background and release area soil concentrations were to be calculated based on the 95% Upper Confidence Levels (UCLs) of the mean concentrations. Based on a review of the background soil data, the Agency determined that the 95%-95% Upper Tolerance Limit (UTL 95-95) was more appropriate for establishing background soil concentrations. WSP concurs with this approach.

The UTL 95-95 values, provided by the EPA, were compared to the human health and the ecological screening levels to establish CVs. The CVs are defined as:

- The lower of the human health or the ecological screening level, unless this value is below background.
- If either the human health or the ecological screening level is above background, then it becomes the CV.
- If both the ecological and the human health screening levels are below background, then background is the CV.

Table 1 presents the screening levels, background UTLs, and CVs.

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WSP notes that the EPA replaced the default residential and industrial preliminary remediation goals (PRGs)[1] presented in the Work Plan Addendum with residential PRGs derived using Risk Assessment Information System's (RAIS) online "PRG calculator"[2]. WSP previously proposed (February 2, 2012) eliminating residential screening levels from the CV identification process and release area evaluation, based on the fact that the subject property was purchased by Nu-West in December 2011 and is now part of the industrial site. WSP understands the EPA's response to this proposal (i.e., eliminating the residential screening levels would "potentially result in a lack of data to inform all parties on the nature and extent of potential contamination") and WSP will use the CVs based on these levels for the purpose of vertical delineation. However, for the purpose of identifying constituents for potential risk evaluation, WSP will utilize the CVs identified based on industrial screening levels. These screening levels, included in Table 1, were calculated using the RAIS PRG calculator for the outdoor worker exposure scenario.

Evaluation of Release Area Concentrations

During a conference call on Wednesday, April 11, 2012, representatives of EPA, Nu-West, and WSP discussed which statistical method (UTL or UCL) should be used to calculate constituent concentrations for the release areas. EPA initially responded that the UTL method should be applied, but subsequently stated (on April 12, 2012) that the 95% UCLs should be calculated and used for comparison with the CVs.

During investigation of the release areas, soil samples were collected from 9 depth intervals between the ground surface and 4 feet below ground surface (ft-bgs). Soil samples collected from the ground surface to 2 inches below ground surface (in-bgs) and 2 to 6 in-bgs were submitted for laboratory analysis;[3] the remaining samples were placed on hold pending establishment of the CVs. Tables 2a and 2b present the CVs and the 95% UCLs for non-radiological and radiological parameters in each of the release areas, and highlight CV exceedences. Where a 95% UCL concentration for the deepest interval analyzed in a release area exceeds a CV, the next deeper sample interval is being released for analysis. This stepped process will continue until the 95% UCL is at or below the CV.

PROJECT TIMELINE AND SCHEDULE

As requested by the EPA, the project timeline and schedule presented in the Work Plan Addendum has been updated to reflect actual dates of implementation, as presented in the attached figure. Going forward, the timeline is based on: a release date of April 20, 2012, for the 0.5 to 1 ft-bgs interval[4]; receipt of results in approximately 3 and 4 weeks for non-radiological and radiological parameters; and approximately 1 week for data management, comparison with CVs, and release of the next deeper intervals. The schedule assumes that delineation will be completed at 2.5 ft-bgs and 1.5 ft-bgs for non-radiological and radiological parameters. If delineation is not complete at those depths, the schedule will, necessarily, be extended.

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[1] Values presented in the Work Plan were from the August 2011 "Generic PRG Tables"; available online at: http://epa-prgs.ornl.gov/radionuclides/

[2] Available online at: http://.rais.ornl.gov/cgi-bin/prg/PRG_search?select=rad

[3] As required by the Work Plan Addendum, analysis was also performed for samples collected from depths of 0.5 to 1 ft-bgs in areas where limestone was observed in the surface soil: 2003 on-site and 2009 release areas.

[4] For the 2003 and 2009 release areas, the next deeper interval is 1 to 1.5 ft-bgs.

If you have any questions, please do not hesitate to contact me.

Sincerely,

Martha E. Fleming
Senior Project Director

cc: Jim Bulman, WSP
P. Scott Burton, Hunton & Williams

Enclosures

Enclosures

Tables

Table 1
Screening Levels, Background Concentrations, and Comparative Values
Nu-West Industries, Inc.
Conda Phosphate Operations Facility
Soda Springs, Idaho (a)

	Human Health Screening Levels			EPA Eco-SSLs (b)				EPA PRGs (c)	EPA RBTC (d)	Background	Comparative	
	EPA Soil RSLs (f)		IDEQ REM IDTL/		Soil	Wildlife		Wildlife	Wildlife	Concentrations	Values	
Parameters	Residential	Industrial	Critical Pathway (g)	Plants	Invertebrates	Avian	Mammalian	Mammalian	Mammalian	(UTL 95-95)		Basis
Metals (mg/kg)												
Aluminum	7,700	99,000 nm	-	- (h)	- (h)	- (h)	- (h)	-	-	15,041	15,041	background
Antimony	3.1 n	41 n	4.77 GWP	-	78	-	0.27	-	-	0.50	0.50	background
Arsenic	0.39 c	1.6 c	0.39 SS	18	-	43	46	-	-	4.7	4.7	background
Barium	1,500 n	19,000 nm	896 GWP	-	330	-	2,000	-	-	170.2	330	Eco Risk
Beryllium	16 n	200 n	1.63 GWP	-	40	-	21	-	-	0.89	1.63	IDTL
Cadmium	7 n (i)	80 n (i)	1.35 GWP	32	140	0.77	0.36	-	-	0.869	0.87	background
Calcium	- (j)	- (j)	- (j)	-	-	-	-	-	-	-	-	-
Chromium (total)	12,000 nm	150,000 nm	2,130 GWP	-	-	26 (k)	34 (k)	-	-	18.61	26	Eco Risk
Iron	5,500 n	72,000 nm	5.76 GWP	- (l)	- (l)	- (l)	- (l)	-	-	14,811	14,811	background
Lead	40 n	80 n	49.6 GWP	120	1,700	11	56	-	-	13.59	14	background
Magnesium	- (j)	- (j)	- (j)	-	-	-	-	-	-	-	-	-
Manganese	180 n (i)	2,300 n (i)	223 GWP	220	450	4,300	4,000	-	-	742	742	background
Nickel	150 n	2,000 n	59.1 GWP	38	280	210	130	-	-	15.71	38	Eco Risk
Potassium	- (j)	- (j)	- (j)	-	-	-	-	-	-	-	-	-
Selenium	39 n	510 n	2.03 GWP	0.52	4.1	1.2	0.63	-	-	1.042	1.04	background
Sodium	- (j)	- (j)	- (j)	-	-	-	-	-	-	-	-	-
Thallium	0.078 n	1 n	1.55 GWP	-	-	-	-	2.1	-	- (m)	2.1	Eco Risk (m)
Vanadium	39 n	520 n	-	-	-	7.8	280	-	-	22.68	23	background
General Chemistry (mg/kg)												
Fluoride (total)	310 n	4,100 n	7.36 (n) GWP	-	-	-	-	-	149	3.95	7.36	IDTL
pH (s.u.)	- (h)	- (h)	- (h)	- (h,l)	- (h,l)	- (h,l)	- (h,l)	-	-	-	-	-

		RAIS PRG (o)		Background Concentrations	Comparative Values (o)			
		Residential	Industrial	(UTL 95-95)	Delineation	Basis	Risk Evaluation	Basis
Radionuclides (pCi/g)								
Gross alpha	α	- (i)	-	6.21	6.21	background	-	background
Gross beta	β	- (i)	-	5.52	5.52	background	-	background
Uranium-234	α	4.95 c	11 c	1.034	4.95	HH Risk	11	HH Risk
Uranium-235	α	0.206 c	0.406 c	0.083	0.206	HH Risk	0.406	HH Risk
Uranium-238	α	0.777 c (p)	1.56 c (p)	1.06	1.06	background	1.56	HH Risk
Thorium-230	α	3.800 c	8.35 c	1.335	3.8	HH Risk	8.35	HH Risk
Radium-226	α	1.1E-05 c (q)	6.3E-06 c	1.958	1.958	background	1.958	background
Radium-228	β	0.033 c (p)	0.055 c (p)	1.756	1.756	background	1.756	background
Lead-210	β	0.66 c	1.38 c	1.411	1.411	background	1.411	background
Polonium-210	α	54.6 c	102 c	1.154	54.6	HH Risk	102	HH Risk
Potassium-40	β	0.138 c	0.271 c	19.94	19.94	background	19.94	background

The EPA screening values provided for non-carcinogenic parameters (n) are 1/10th of the published screening levels to account for cumulative adverse effects.

Table 1 (continued)
Screening Levels, Background Concentrations, and Comparative Values
Nu-West Industries, Inc.
Conda Phosphate Operations Facility
Soda Springs, Idaho

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a/ Eco-SSLs = ecological soil screening levels; EPA = U.S. Environmental Protection Agency; IDEQ = Idaho Department of Environmental Quality; RSL = regional screening level; REM = Risk Evaluation Manual; IDTL = Idaho Default Screening Level; PRG = preliminary remediation goal; RBTC = risk-based threshold concentration; UTL 95-95 = upper tolerance level; RAIS = Risk Assessment Information System; HH = human health; mg/kg = milligrams per kilograom; s.u. = standard units; pCi/g = picocuries per gram; "-" indicates screening level not developed; "n" indicates RSL based on non-carcinogenic toxicity; "m" indicates RSL may exceed the ceiling limit; "c" indicates RSL based on carcinogenic toxicity; SS indicates surficial soil as the critical pathway; GWP indicates groundwater is the critical pathway.
b/ Eco-SSLs are available online at http://www.epa.gov/ecotox/ecossl/
c/ EPA PRGs are available online at http://www.esd.ornl.gov/programs/ecorisk/documents/tm162r2.pdf
d/ Booz Allen Hamilton 2011 RepA4-2101-020_rev
e/ Estimated background threshold value developed by EPA (April 6, 2012).
f/ EPA RSLs are available online at: http://www.epa.gov/reg3hwmd/risk/human/rb-concentration_table/index.htm (June 2011).
g/ Idaho REM; available online at http://www.deq.idaho.gov/Applications/Brownfields/download/appx_all.pdf (July 2004).
h/ The Eco-SSL for aluminum is based on soil pH because the potential toxicity or bioaccumulation cannot be reliably predicted based on total aluminum concentrations. Therefore, the eco-SSL is identified as a site soil pH less than 5.5 s.u. If the pH is less than 5.5 s.u., aluminum should be retained as a constituent of potential concern.
i/ The RSL for diet is reported for cadmium; the RSL for non-diet is reported for manganese.
j/ To determine potential impacts from the releases, sample concentrations for these parameters will be compared to background concentrations.
k/ The values are for trivalent chromium.
l/ Due to the complex nature of the bioavailabilty of iron to plants and dependence on site-specific soil conditions, a benchmark for iron was not developed. To evaluate iron, site-specific measurements of pH and Eh should be used to determine the expected valence state of iron and resulting bioavailability and toxicity. Generally, in well-aerated soils, a pH between 5 and 8 s.u. is not expected to be toxic for iron.
m/ Thallium was not detected in any of the background samples. The ecological PRG was identified as the screening value as the human health values are lower than the method detection limit.
n/ The IDTL is for sodium fluoride.
o/ Calculated using the Risk Assessment Information System's (RAIS) "PRG calculator" at target ELCR of 1 x 10^{-6}; available online at http://rais.ornl.gov/cgi-bin/prg/PRG_search?select=rad The residential values were provided by EPA; the industrial values are provided by WSP based on an outdoor worker exposure scenario. While delineation to the residential PRG will be performed, the industrial PRG will be used for the purpose of identifying parameters for potential evaluation of risk to human health. Refer to the text for further discussion.
p/ The values are based on risks associated with U-238 and its daughter products and Ra-228 and its daughter products. The calculated values for the U-238 and Ra-228 isotopes (i.e., without their daughter products) are higher.
q/ The value provided by the EPA was truncated "0.000"; the actual calculated value (at 1 x 10^{-6} target ELCR) is shown.

Table 2a
Summary of Release Area Soil Concentrations and Comparative Value Exceedences
(Non-Radiological Parameters)
Nu-West Industries, Inc.
Conda Phosphate Operations Facility
Soda Springs, Idaho (a)

Release Area:		2003 On Site				2003 Off Site			2006 A1		
Sample Depth (bgs):		0-2 in	2-6 in	0.5-1 ft	1-1.5 ft	0-2 in	2-6 in	0.5-1 ft	0-2 in	2-6 in	0.5-1 ft
Parameters	**CVs (b)**										
Metals (mg/kg)											
Aluminum	15,041	**17,760**	**18,341**	**16,392**	tbd	12,695	12,994	-	7,829	8,877	-
Antimony	0.50	0.33 U	0.44 U	0.21 U	-	0.25 U	0.25 U	-	1.09 U	0.97 U	-
Arsenic	4.7	4.4	**4.8**	4.0	-	3.7	3.5	-	2.2	2.6	tbd (c)
Barium	330	147	144	159	-	144	143	-	146	166	-
Beryllium	1.63	0.85	0.88	0.93	-	0.70	0.70	-	1.04	1.23	-
Cadmium	0.87	**5.15**	**3.18**	**2.34**	tbd	**1.85**	**1.66**	tbd	**3.43**	**1.52**	tbd
Calcium	-	61,078	60,202	29,781	-	4,746	4,457	-	241,762	280,541	-
Chromium	26	**34.5**	**36.3**	22.4	-	18.4	17.1	-	16.0	13.0	tbd (c)
Iron	14,811	**15,935**	**16,113**	**15,472**	tbd	12,057	12,082	-	7,359	7,816	-
Lead	14	11.5	12.3	13.0	-	12.5	12.9	-	**14.8**	9.3	-
Magnesium	-	6,267	6,365	5,000	-	3,143	3,115	-	5,133	5,366	-
Manganese	742	393	396	557	-	555	528	-	457	516	-
Nickel	38	15.0	15.9	14.8	-	13.1	12.8	-	10.4	9.3	-
Potassium	-	4,147	4,328	3,320	-	3,610	3,484	-	2,385	2,493	-
Selenium	1.04	**1.29**	0.48 U	0.42 U	-	0.49 U	0.50 U	-	2.19 U	1.95 U	tbd (c)
Sodium	-	635	630	237	-	138 U	140 U	-	162 U	124 U	-
Thallium	2.1	0.26 U	0.32 U	0.28 U	-	0.32 U	0.33 U	-	1.44 U	1.38 U	-
Vanadium	23	**45.6**	**47.0**	**26.9**	tbd	**23.1**	21.1	-	18.4	14.4	tbd (c)
General Chemistry											
Fluoride (mg/kg)	7.36	**217.7**	**204.3**	**126.7**	tbd	**85.7**	**75.6**	tbd	**19.3**	**15.8**	tbd
pH (s.u.)	-	6.87-6.93	6.56-7.04	6.87-7.35	-	6.14-6.49	6.16-6.35	-	7.61-7.66	7.60-7.88	-

Release Area:		2006 A2			2006 A3			2006 A4		
Sample Depth (bgs):		0-2 in	2-6 in	0.5-1 ft	0-2 in	2-6 in	0.5-1 ft	0-2 in	2-6 in	0.5-1 ft
Parameters	**CVs**									
Metals (mg/kg)										
Aluminum	15,041	9,307	10,853	-	10,882	12,703	-	10,357	12,103	-
Antimony	0.50	1.13 U	1.07 U	-	1.06 U	1.22 U	-	1.06	1.17 U	-
Arsenic	4.7	**5.3**	**6.1**	tbd	**7.0**	**7.7**	tbd	**7.5**	**8.6**	tbd
Barium	330	169	194	-	163	205	-	150	188	-
Beryllium	1.63	0.83	1.05	-	0.93	1.20	-	0.90	1.13	-
Cadmium	0.87	**2.38**	0.50	-	**4.13**	**2.46**	tbd	**9.68**	**5.26**	tbd
Calcium	-	233,762	287,098	-	195,762	268,098	-	197,762	267,098	-
Chromium	26	16.6	14.4	-	**49.5**	**27.9**	tbd	**117.3**	**76.7**	tbd
Iron	14,811	10,261	11,024	-	11,686	13,474	-	10,226	11,564	-
Lead	14	**15.6**	8.1	-	**16.9**	8.9	-	**16.2**	9.8	-
Magnesium	-	5,240	5,570	-	4,415	5,300	-	4,405	5,090	-
Manganese	742	402	739	-	631	737	-	470	603	-
Nickel	38	10.5	9.9	-	17.5	14.9	-	29.7	23.2	-
Potassium	-	2,685	2,883	-	2,965	3,303	-	2,875	3,213	-
Selenium	1.04	2.29 U	2.21 U	-	**2.71**	2.46 U	-	**3.21**	**4.36**	tbd
Sodium	-	142 U	105 U	-	130 U	120 U	-	155 U	115 U	-
Thallium	2.1	1.48 U	1.46 U	-	1.36 U	1.61 U	-	1.31 U	1.56 U	-
Vanadium	23	22.0	17.4	-	**61.5**	**36.5**	tbd	**139.2**	**93.5**	tbd
General Chemistry										
Fluoride (mg/kg)	7.36	**14.4**	**30.4**	tbd	**32.9**	**34.7**	tbd	**44.9**	**80.4**	tbd
pH (s.u.)	-	7.28-7.31	7.46-7.68	-	7.64-7.67	7.54-7.94	-	7.56-7.60	7.32-7.72	-

The sample concentrations represent the 95% upper confidence levels of the mean concentrations calculated in accordance with the Work Plan Addendum
Bold and boxed values indicate the concentrations exceed the comparative values

Table 2a (continued)
Summary of Release Area Soil Concentrations and Comparative Value Exceedences
(Non-Radiological Parameters)
Nu-West Industries, Inc.
Conda Phosphate Operations Facility
Soda Springs, Idaho

Release Area:		2006 A5			2006 B			2009			
Sample Depth (bgs):		0-2 in	2-6 in	0.5-1 ft	0-2 in	2-6 in	0.5-1 ft	0-2 in	2-6 in	0.5-1 ft	1-1.5 ft
Parameters	**CVs**										
Metals (mg/kg)											
Aluminum	15,041	14,387	14,503	-	10,246	9,676	-	12,998	13,225	**15,691**	tbd
Antimony	0.50	0.58 U	0.53 U	-	0.91 U	0.90 U	-	0.21 U	0.23 U	0.26 U	-
Arsenic	4.7	3.32	4.2	-	3.22	3.09	-	3.73	3.47	3.98	-
Barium	330	138	159	-	146	158	-	135	148	155	-
Beryllium	1.63	0.85	1.04	-	0.43	0.45	-	0.53	0.60	0.70	-
Cadmium	0.87	**3.88**	**1.56**	tbd	**5.84**	**4.75**	tbd	**3.50**	**2.96**	**1.62**	tbd
Calcium	-	51,462	92,898	-	224,200	244,640	-	9,370	4,977	4,812	-
Chromium	26	25.0	20.4	-	38.7	17.5	-	23.7	21.0	21.8	-
Iron	14,811	12,541	12,874	-	6,870	6,983	-	12,625	12,337	**14,854**	tbd
Lead	14	**17.6**	13.2	-	11.9	7.5	-	13.0	12.7	13.0	-
Magnesium	-	4,995	5,240	-	4,584	4,765	-	3,166	3,236	3,878	-
Manganese	742	422	518	-	359	376	-	406	498	590	-
Nickel	38	15.7	15.0	-	9.7	10.3	-	13.8	13.7	15.4	-
Potassium	-	4,120	4,083	-	2,818	2,539	-	3,762	3,512	3,742	-
Selenium	1.04	**1.32**	**1.44**	tbd	1.83 U	1.79 U	-	0.41 U	0.45 U	0.52 U	-
Sodium	-	201	95 U	-	286	128 U	-	113 U	125 U	144 U	-
Thallium	2.1	0.77 U	0.72 U	-	1.31 U	1.19 U	-	0.26 U	0.29 U	0.34 U	-
Vanadium	23	**32.9**	**26.4**	tbd	**38.1**	**26.5**	tbd	**35.1**	**24.9**	**25.5**	tbd
General Chemistry											
Fluoride (mg/kg)	7.36	**76.4**	**21.8**	tbd	**352.1**	**154.0**	tbd	**170.5**	**210.1**	**189.0**	tbd
pH (s.u.)	-	7.31-7.35	7.34-7.74	-	7.28-7.60	7.55-7.95	-	**5.28-5.36** (d)	**5.40-5.50** (d)	**5.39-5.63** (d)	tbd

The sample concentrations represent the 95% upper confidence levels of the mean concentrations calculated in accordance with the Work Plan Addendum
Bold and boxed values indicate the concentrations exceed the comparative values

a/ bgs = below ground surface; in = inches; ft = feet below ground surface; mg/kg = milligrams per kilogram; s.u. = standard unit; tbd = to be determined; CV = comparative value; "-" indicates comparative value not developed/analysis not required.
b/ Refer to Table 1 for source of comparative values.
c/ The 2006 A1 decision unit samples are being released for analysis of additional parameters such that the data can be used to calculate the 95% upper confidence levels of the mean concentrations for the remaining 2006 A-series DUs.
d/ Pursuant to the ecological soil screening levels (Table 1), if the pH is less than 5.5 s.u., aluminum should be retained as a constituent of potential concern. Consequently, analysis for pH will be performed to delineate to above 5.5 s.u.

Table 2b
Summary of Release Area Soil Concentrations and Comparative Value Exceedences
(Radiological Parameters)
Nu-West Industries, Inc.
Conda Phosphate Operations Facility
Soda Springs, Idaho (a)

Release Area:			2003 ON SITE				2003 OFF SITE			2006 A1			2006 A2			2006 A3		
Sample Interval (bgs):			0-2 in	2-6 in	0.5-1 ft	1-1.5 ft	0-2 in	2-6 in	0.5-1 ft	0-2 in	2-6 in	0.5-1 ft	0-2 in	2-6 in	0.5-1 ft	0-2 in	2-6 in	0.5-1 ft
	Comparative Values (b)																	
Parameters (pCi/g)	Delineation	Risk Evaluation																
Gross alpha	6.21	-	**22.8**	**18.7**	**17.8**	- tbd	**7.6**	4.7	-	**10.1**	4.1	- tbd	**7.8**	6.0	-	**14.3**	**9.2**	- tbd
Gross beta	5.52	-	**14.1**	**11.1**	**9.4**	- tbd	**7.0**	**6.5**	- tbd	**9.3**	3.7	- tbd	**9.9**	**5.7**	- tbd	**14.9**	**5.4**	- tbd
U-234	4.95	11	2.53	1.49	1.48	-	1.49	1.20	-	0.79	0.46	-	0.73	0.57	-	1.86	1.16	-
U-235	0.206	0.406	0.169	0.119	0.088	-	0.099	0.112	-	0.020	0.031	-	0.020	0.041	-	0.096	0.038	-
U-238	1.06	1.56	**2.54**	**1.78**	**1.36**	- tbd	**1.38**	**1.11**	- tbd	0.65	0.36	- tbd	0.60	0.49	-	**2.12**	0.99	-
Th-230	3.8	8.35	3.00	2.04	2.08	-	1.97	1.44	-	1.02	0.67	-	1.15	0.64	-	2.34	0.98	-
Ra-226	1.958	1.958	**6.598**	**3.875**	**4.049**	- tbd	**2.392**	1.951	-	**2.014**	1.424	- tbd	1.586	1.287	-	**2.621**	1.957	-
Ra-228	1.756	1.756	1.516	**2.201**	1.257	-	1.334	**1.776**	- tbd	1.119	0.455	-	1.271	0.485	-	1.301	0.835	-
Pb-210	1.411	1.411	**4.015**	**2.799**	**2.811**	- tbd	**2.659**	1.008	-	**2.656**	0.533	- tbd	**1.929**	0.633	-	**2.634**	0.813	-
Po-210	54.6	102	5.87	3.51	2.98	-	2.56	0.92	-	3.14	0.88	-	2.53	0.91	-	3.89	1.11	-
K-40	19.94	19.94	17.62	16.54	15.64	-	**21.98**	17.28	-	5.34	7.78	- tbd	7.70	11.15	-	9.90	10.05	-

Release Area:			2006 A4			2006 A5			2006 B			2009			
Sample Interval (bgs):			0-2 in	2-6 in	0.5-1 ft	0-2 in	2-6 in	0.5-1 ft	0-2 in	2-6 in	0.5-1 ft	0-2 in	2-6 in	0.5-1 ft	1-1.5 ft
	Comparative Values														
Parameters (pCi/g)	Delineation	Risk Evaluation													
Gross alpha	6.21	-	**27.0**	**13.7**	- tbd	**12.1**	**8.1**	- tbd	**15.2**	5.2	-	**10.2**	**6.9**	5.0	-
Gross beta	5.52	-	**20.9**	**9.9**	- tbd	**12.4**	**7.8**	- tbd	**10.0**	5.3	-	**10.3**	**6.5**	**6.2**	- tbd
U-234	4.95	11	3.15	1.62	-	1.34	0.99	-	3.04	1.35	-	2.10	1.32	1.16	-
U-235	0.206	0.406	0.140	0.136	-	0.062	0.057	-	0.156	0.062	-	0.111	0.112	0.050	-
U-238	1.06	1.56	**3.20**	**1.74**	- tbd	**1.39**	0.98	-	**3.17**	**1.27**	- tbd	**2.26**	**1.31**	**1.30**	- tbd
Th-230	3.8	8.35	**4.27**	1.84	-	1.68	1.67	-	**4.72**	0.95	-	2.64	1.85	1.31	-
Ra-226	1.958	1.958	**4.616**	**2.757**	- tbd	**2.471**	**2.557**	- tbd	**2.431**	0.997	-	**3.681**	1.841	1.617	-
Ra-228	1.756	1.756	1.366	0.695	-	1.661	1.395	-	0.666	0.825	-	1.435	1.487	1.548	-
Pb-210	1.411	1.411	**4.519**	**1.983**	- tbd	**2.414**	**1.623**	- tbd	**4.680**	0.852	-	**3.455**	**1.518**	0.956	-
Po-210	54.6	102	5.36	2.54	-	2.96	1.13	-	5.39	1.45	-	3.95	1.48	1.09	-
K-40	19.94	19.94	11.80	8.75	-	16.70	**19.95**	- tbd	7.39	6.59	-	17.78	17.03	18.70	-

The sample concentrations represent the 95% upper confidence levels of the mean concentrations calculated in accordance with the Work Plan Addendum
Bold and boxed values indicate the concentrations exceed the comparative values for vertical delineation
Yellow highlighted values indicate the concentrations exceed the comparative values for potential human health risk evaluation

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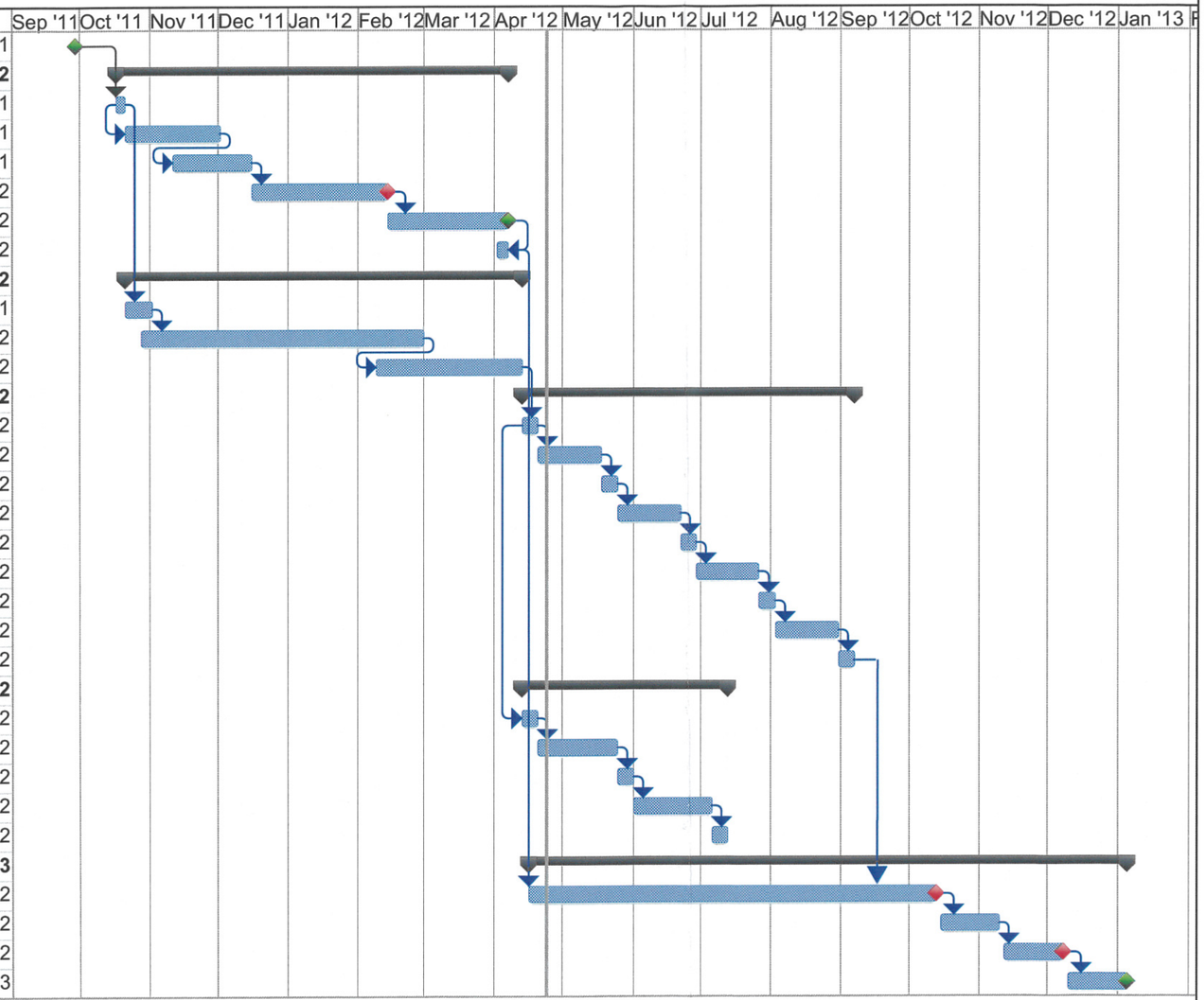
a/ bgs = below ground surface; in = inches; ft = feet below ground surface; pCi/g = picocuries per gram; tbd = to be determined; "-" indicates comparative value not developed/analysis not required.
b/ Refer to Table 1 for the source of comparative values (i.e., background or screening levels).
Delineation will be to the residential PRG; potential inclusion in a risk evaluation will be based on the industrial PRG (based on the outdoor worker exposure scenario).
Refer to the text for additional discussion.
c/ The 2006 A1 release area samples are being released for analysis of additional parameters such that the data can be used to calculate the 95% upper confidence levels of the mean concentrations for the remaining 2006 A-series release areas.

Figure

Figure 1
Project Schedule
Off-Site Soil Sampling Plan
NU-WEST Industries, Inc.
Soda Springs, Idaho

ID	Task Name	Duration	Start	Finish
1	EPA Approval	1 day	9/29/11	9/29/11
2	**Background Activities**	**125 days**	**10/17/11**	**4/6/12**
3	Background Fieldwork	4 days	10/17/11	10/20/11
4	Laboratory Analysis	30 days	10/21/11	12/1/11
5	Data Management/Analysis	25 days	11/11/11	12/15/11
6	Background Concentration Proposal to EPA	42 days	12/16/11	2/13/12
7	EPA Review	39 days	2/14/12	4/6/12
8	Finalize Background Concentrations	5 days	4/2/12	4/6/12
9	**Release Area Activities**	**125 days**	**10/21/11**	**4/12/12**
10	Release Area DU Fieldwork	8 days	10/21/11	11/1/11
11	Laboratory Analysis (0 to 0.2 and 0.2 to 0.5 ft)	89 days	10/28/11	2/29/12
12	Data Management/Analysis	46 days	2/9/12	4/12/12
13	**Non-Rad Data Steps**	**105 days**	**4/13/12**	**9/6/12**
14	Compare 0.2 to 0.5 ft. data with screening levels	5 days	4/13/12	4/19/12
15	Laboratory Analysis (0.5 to 1 ft.)	20 days	4/20/12	5/17/12
16	Compare 0.5 to 1 ft. data with screening levels	5 days	5/18/12	5/24/12
17	Laboratory Analysis (1 to 1.5 ft.)	20 days	5/25/12	6/21/12
18	Compare 1 to 1.5 ft. data with screening levels	5 days	6/22/12	6/28/12
19	Laboratory Analysis (1.5 to 2 ft.)	20 days	6/29/12	7/26/12
20	Compare 1.5 to 2 ft. data with screening levels	5 days	7/27/12	8/2/12
21	Laboratory Analysis (2 to 2.5 ft.)	20 days	8/3/12	8/30/12
22	Compare 2 to 2.5 ft. data with screening levels	5 days	8/31/12	9/6/12
23	**Rad Data Steps**	**65 days**	**4/13/12**	**7/12/12**
24	Compare 0.2 to 0.5 ft. data with screening levels	5 days	4/13/12	4/19/12
25	Laboratory Analysis (0.5 to 1 ft.)	25 days	4/20/12	5/24/12
26	Compare 0.5 to 1 ft. data with screening levels	5 days	5/25/12	5/31/12
27	Laboratory Analysis (1 to 1.5 ft.)	25 days	6/1/12	7/5/12
28	Compare 1 to 1.5 ft. data with screening levels	5 days	7/6/12	7/12/12
29	**Reporting**	**190 days**	**4/16/12**	**1/4/13**
30	Draft Report Preparation	130 days	4/16/12	10/12/12
31	EPA Review	20 days	10/15/12	11/9/12
32	Revised Report Preparation	20 days	11/12/12	12/7/12
33	EPA Review	20 days	12/10/12	1/4/13



Project: Nu-West_Sch_091611
Date: 4/24/12

Task	External Tasks	Inactive Summary	Start-only
Split	External Milestone	Manual Task	Finish-only
Milestone	Inactive Task	Duration-only	Progress
Summary	Inactive Task	Manual Summary Rollup	Deadline
Project Summary	Inactive Milestone	Manual Summary